

WHAT IS CLAIMED IS:

1. A process for recovering fluoropolymers, which comprises contacting an ion exchange membrane comprising a fluoropolymer having carboxylic acid groups (hereinafter referred to as a C-polymer) and a fluoropolymer having sulfonic acid groups (hereinafter referred to as a S-polymer) and having inorganic particles deposited on the surface, with a solvent to let it swell and to remove the inorganic particles from the surface, then, contacting it with a solvent which is a good solvent for the S-polymer and a poor solvent for the C-polymer to obtain a solid composed mainly of the C-polymer and a solution having the S-polymer dissolved therein, and recovering them by solid-liquid separation.
- 15 2. The process for recovering fluoropolymers according to Claim 1, wherein the solvent to let the ion exchange membrane swell is a mixed solvent comprising a water-soluble organic solvent and water.
- 20 3. The process for recovering fluoropolymers according to Claim 1, wherein the solvent which is a good solvent for the S-polymer and a poor solvent for the C-polymer, is such that the solubility of the S-polymer therein is at least 10 times the solubility of the C-polymer therein.
- 25 4. The process for recovering fluoropolymers according to Claim 2, wherein the solvent which is a good solvent for the S-polymer and a poor solvent for the C-polymer, is such that the solubility of the S-polymer therein is

at least 10 times the solubility of the C-polymer therein.

5. The process for recovering fluoropolymers according to Claim 1, wherein before contacting with the solvent which is a good solvent for the S-polymer and a poor 5 solvent for the C-polymer, the ion exchange membrane after removing the inorganic particles, is treated with an acid to convert the C-polymer and S-polymer from salt-form to acid-form.

6. The process for recovering fluoropolymers according 10 to Claim 2, wherein before contacting with the solvent which is a good solvent for the S-polymer and a poor solvent for the C-polymer, the ion exchange membrane after removing the inorganic particles, is treated with an acid to convert the C-polymer and S-polymer from salt- 15 form to acid-form.

7. The process for recovering fluoropolymers according to Claim 1, wherein the C-polymer is a copolymer obtained by copolymerizing tetrafluoroethylene with a perfluoro vinyl ether having a carboxylic acid group and has an ion 20 exchange capacity of from 0.8 to 1.9 meq/g dry resin.

8. The process for recovering fluoropolymers according to Claim 1, wherein the S-polymer is a copolymer obtained by copolymerizing tetrafluoroethylene with a perfluoro vinyl ether having a sulfonic acid group and has an ion 25 exchange capacity of from 0.8 to 1.3 meq/g dry resin.

9. The process for recovering fluoropolymers according to Claim 2, wherein the content of water in the mixed

solvent comprising a water-soluble organic solvent and water, is at least 50 mass%.

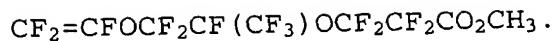
10. The process for recovering fluoropolymers according to Claim 2, wherein the water-soluble organic solvent is 5 methanol or ethanol.

11. The process for recovering fluoropolymers according to Claim 2, wherein the mixed solvent comprising a water-soluble organic solvent and water, is an aqueous ethanol solution, wherein the content of water is from 60 to 98 10 mass%.

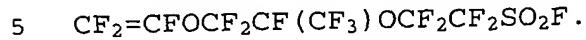
12. The process for recovering fluoropolymers according to Claim 3, wherein the solvent which is a good solvent for the S-polymer and a poor solvent for the C-polymer, is ethanol, methanol, an aqueous ethanol solution having 15 a content of water of at most 40 mass%, or an aqueous methanol solution having a content of water of at most 40 mass%.

13. The process for recovering fluoropolymers according to Claim 4, wherein the solvent which is a good solvent 20 for the S-polymer and a poor solvent for the C-polymer, is ethanol, methanol, an aqueous ethanol solution having a content of water of at most 40 mass%, or an aqueous methanol solution having a content of water of at most 40 mass%.

25 14. The process for recovering fluoropolymers according to Claim 7, wherein the C-polymer is one obtained by hydrolyzing a copolymer of tetrafluoroethylene and



15. The process for recovering fluoropolymers according to Claim 8, wherein the S-polymer is one obtained by hydrolyzing a copolymer of tetrafluoroethylene and



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